

We claim:

1. A process for the purification of silicone oil or fluid for use as an ocular tamponade comprising:  
  
performing a supercritical carbon dioxide extraction of said silicone oil or fluid to remove cyclic and oligomeric impurities.
2. A process for the purification of silicone oil or fluid for use as an ocular tamponade comprising:  
  
performing a supercritical carbon dioxide mixture extraction of said silicone oil or fluid to remove cyclic and oligomeric impurities.
3. The process of claim 1 wherein said extraction is conducted at a pressure of approximately 3000 psi, a temperature of approximately 55 degrees Celsius and a carbon dioxide flow rate of approximately 52 gm/minute.
4. The process of claim 2 wherein said extraction is conducted at a pressure of approximately 3000 psi, a temperature of approximately 55 degrees Celsius and a carbon dioxide mixture flow rate of approximately 52 gm/minute.
5. The process of claim 1 wherein said extraction is conducted at a carbon dioxide flow rate of approximately 20 to 26 gm/minute and a flow time of approximately 90 minutes.

6. The process of claim 2 wherein said extraction is conducted at a carbon dioxide mixture flow rate of approximately 20 to 26 gm/minute and a flow time of approximately 90 minutes.
7. The process of claim 2 wherein said carbon dioxide mixture comprises approximately 90 percent carbon dioxide and approximately 10 percent acetone.
8. The process of claim 2 wherein said carbon dioxide mixture comprises carbon dioxide and a modifier.
9. The process of claim 2 wherein said carbon dioxide mixture comprises carbon dioxide and acetone or acetonitrile.
10. The process of claim 2 wherein said carbon dioxide mixture comprises carbon dioxide and methanol.
11. The process of claim 2 wherein said carbon dioxide mixture comprises carbon dioxide and isopropanol.
12. The process of claim 2 wherein said carbon dioxide mixture comprises approximately 90 percent carbon dioxide and approximately 10 percent methanol.

13. The process of claim 2 wherein said carbon dioxide mixture comprises approximately 90 percent carbon dioxide and approximately 10 percent isopropanol.
14. A silicone oil or fluid ophthalmic tamponade produced using the process of claim 1 or 2.
15. A method of using the silicone oil or fluid ophthalmic tamponade of claim 14 in an ophthalmic surgical procedure comprising:
  - creating an incision into a posterior chamber of an eye;
  - positioning damaged retinal tissue within the eye; and
  - filling said posterior chamber of the eye with said silicone oil.
16. A method of using the silicone oil ophthalmic tamponade of claim 14 in an ophthalmic surgical procedure comprising:
  - creating an incision into a posterior chamber of an eye; and
  - filling said posterior chamber of the eye with said silicone oil or fluid.